

PUTTING OPEN SCIENCE INTO ACTION







OPEN SCIENCE

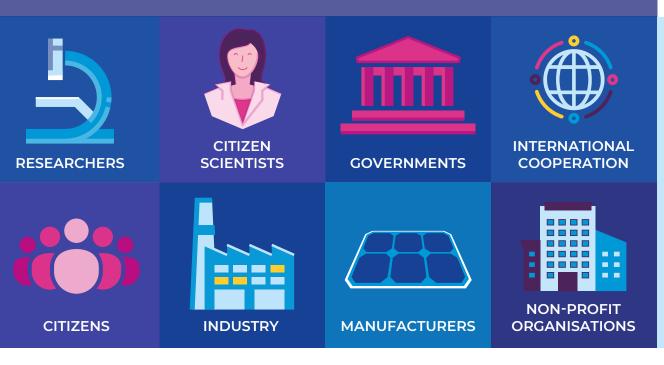


CITIZEN SCIENCE

GRECO pilots the integration of
Open Science and other Research
& Innovation (RRI) practices within
a H2020 engineering project for the
development of cutting-edge
photovoltaic products

INNOVATIVE SCIENTIFIC APPROACHES

GRECO demonstrates how **knowledge coalitions** comprising researchers, civil organisations, citizens, governments, industry and non-profit organisations may adopt RRI approaches such as Open Science. Specifically, GRECO fosters the uptake of six innovative **socially acceptable solutions** for photovoltaic products.



GRECO will set a framework where Citizens will actively participate in the process of research, development and innovation both in the design of new PV solutions and in the provision of data.

Open Science in a whole dimension is explored. GRECO will follow Open Access and Open Data policies, but at the same time Open Software, Open Notebooks or Innovative Open Metadata will be produced as a part of a new way of doing science.

Within the framework of the project, GRECO researchers will develop

6 cutting-edge photovoltaic products:

- 1. The in-situ repair methodology saves the cost of replacing defective modules, thus supporting the idea of Circular Economy.
- 3. A more sustainable solution for irrigation pursues cost reduction and widespread use of renewable energy in agriculture.
- 5. A novel system of modules provides energy to buildings up to 8 storeys high.
- 2. An ageing model for photovoltaic modules improves the estimation of energy production of PV plants and increases investor confidence.
- 4. Cheaper and more efficient solar cells increase societal acceptance.
- 6. Improved PV heat-pump systems enable renewable sources in daily life.



MISSION POSSIBLE!

In the summer of 2020, the GRECO team will release a guide for implementing RRI and Open Science concepts in research projects, incorporating the practical learnings from GRECO. The guide aims at helping future research projects to smoothly integrate the RRI approach.

All the research products will be developed through a whole RRI approach. This includes Ethics, Gender, Public Engagement,
Governance, Science Education and Open Science practices. Regarding the last ones, GRECO researchers will adopt Open Access and Open Data policies. Moreover, they will implement Open Notebooks, among many others, and share their experiences.

This should encourage other researchers to apply RRI policies within a real project – mission possible!